

October 18, 2005

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#### Dear Rich:

The CEE Lighting Committee (Committee) would like to thank the Department of Energy (DOE) for the opportunity to submit comments on the proposed changes to the ENERGY STAR CFL criteria. The following comments were developed by the Committee in response to information shared at the September 20 stakeholder meeting and are supported by the organizations listed below.

#### 1. Intent of Criteria

As voiced at the stakeholder meeting, the Committee believes that products meeting the ENERGY STAR CFL criteria should be the most efficient, best performing products on the market. The following comments are built upon this underlying philosophy. The Committee looks forward to the opportunity to work with DOE and manufacturers to develop the long-term strategy for the product category that forwards this philosophy.

#### 2. Reflector CFLs

The Committee supports the proposal to consider reflector CFLs as a separate category from bare and covered CFLs. Specifically, the Committee supports the elevated temperature testing, as it represents an important addition to the criteria.

In response to industry questions on the scope of the elevated temperature testing (specifically, whether outdoor floods and PAR-38s are required to be tested), the Committee is open to the concept of excluding these products from elevated temperature testing, though would like to withhold final comment until there is an opportunity to review the proposed labeling scheme that was discussed at the stakeholder meeting.

Related to the labeling of R-lamps, the Committee would like DOE to consider the viability of adding a graphic and/or language to packaging of these products that educates consumers on the fact that CFLs are diffuse light sources, and will function as flood rather than spot lights. It is the Committee's understanding that this type of labeling is used for commercial applications, and its use in the residential market may decrease consumer dissatisfaction with the light distribution of R-lamps.

# 3. Color Requirements (CCT and CRI)

The Committee supports the modifications to testing and reporting of Correlated Color Temperature (CCT) within the proposed criteria.

With regard to Color Rendering Index (CRI), several manufacturers at the stakeholder meeting suggested that the allowance for variation be increased. Their proposal was that three (rather than two) lamps be allowed to have a CRI of less than 77. The Committee believes that consistency in light quality is an important component to increase consumer adoption of ENERGY STAR CFLs. The Committee is open to other proposals for achieving that end, whether a standard deviation or percentage variation, and asks that other stakeholders provide the rationale behind any relaxation in the consistency component of the CRI, as well as detailed explanation of how the alternate proposal would achieve the aim of consistency in color.

## 4. Mercury

DOE should develop a component that addresses mercury within the ENERGY STAR CFL criteria to address consumer concerns and changes in public policy. This is critical given new regulations in California that require CFL recycling, labeling requirements in Washington and Vermont, and concerns in areas with large amounts hydro-power that CFLs add more mercury to the environment than incandescents given their generation mix.

One component that the Committee recommends DOE pursue is offering support for retail-based lamp recycling efforts. Specifically, DOE should encourage manufacturers to distribute lamp recycling information through their 800 numbers, web sites, and packaging. This should include pointing consumers to NEMA's web site on recycling, <a href="www.lamprecycle.org">www.lamprecycle.org</a>. In addition, DOE should encourage lamp manufacturers to work with other stakeholders to develop a retail-based lamp recycling infrastructure, similar to the one recently developed in Eugene, Oregon.

Other components that DOE should consider incorporating into the criteria to address mercury include working with industry to establish a test procedure for measuring the content of mercury in ENERGY STAR-qualified CFLs and creating a future requirement within the criteria rewarding lower mercury products.

# 5. Smoking CFLs

Prevention of "smoking CFLs" is a very high priority for the Lighting Committee. Though the technical issue was clarified at the stakeholder meeting, the Committee continues to urge DOE to act to prevent consumer perception that CFLs are catching fire in their homes. Lighting program managers at BC Hydro, Northeast Utilities, and Tacoma Power, among others have seen multiple problems arise as a result of this issue. The Canadian Standards Association is gathering a log of incidents with smoking CFLs, and DOE is strongly encouraged to seek out the information in order to ascertain the size of the problem.

It is the Committee's understanding that over-current protection can be used to prevent CFLs from smoking upon catastrophic failure. The Committee urges DOE to further investigate the technical cause of the problem and incorporate such measures that will prevent CFLs from smoking upon failure within the criteria.

# 6. Scope

The Committee urges DOE to consider incorporation of candelabra-base CFLs within the ENERGY STAR criteria. Due to interest from industry (Committee members have received requests from manufacturers of these products to include them in their incentive programs), similarity to medium-base CFLs (which are covered), and potential energy savings (described below), the Committee believes that expanding the scope of the criteria to include these products would benefit the program.

In response to comments by manufacturers that the aggregate energy savings would not justify their incorporation, Committee members note that in the hospitality market, candelabra base products are being widely used in sconces and covered chandeliers. In these applications, the candelabra-base CFLs are often on 24 hours a day and are replacing 20-25W lamps. Though no studies have quantified these energy savings, anecdotal information from Committee members demonstrates that the savings could be significant.

In addition to considering candelabra-base CFLs now, the Committee recommends that DOE develop a procedure for consideration of other bases and technologies, including mogul-bases and cold cathode CFLs. In particular, cold cathode CFLs are gaining momentum in some markets, and the Committee recommends that DOE watch this technology as it develops, incorporating it into the ENERGY STAR CFL program if and when it matures.

# 7. Dimming

As noted at the stakeholder meeting, there is currently no definition of dimming performance that CFLs must meet in order to be advertised as "dimming CFLs." The Committee recommends that DOE rectify this by taking several steps. First, the Committee urges DOE to set a bar, using the ENERGY STAR fixture specification as a guideline, requiring dimming down to a set percentage of full light output for products that are advertised as "dimming CFLs." It should be noted in the criteria that dimming must be achieved with a standard two-wire dimmer, unless otherwise noted on packaging.

Second, the Committee recommends that DOE provide guidelines for manufacturers of dimming CFLs on how to communicate to consumers whether there is a conditioning period that is required of their products.

Third, the Committee recommends that DOE begin development of a test procedure to verify the dimming claims of ENERGY STAR CFLs.

#### 8. Efficacy

The Committee supports the proposed increases in efficacy, though asks that DOE compare the proposed levels with international specifications to see if greater alignment can be achieved. Specifically, DOE should monitor work of the International CFL Harmonization Initiative, which was an outgrowth of the 2005 Right Light Conference.

#### 9. Lumen Maintenance

The Committee supports DOE's proposed changes to the criteria with regard to consistency in measurement of lumen maintenance.

## 10. Third Party Testing

With regard to the third party testing component of the criteria, the Committee has reviewed the feedback provided by the PEARL Board and would like to indicate its supports for those comments. With regard to the question of cost sharing for testing, which was raised at the stakeholder meeting, the Committee supports the arrangement that has been proposed by DOE, whereby each manufacturer is responsible for covering its own testing costs.

# 11. Run-Up Time

With regard to run-up time, the Committee supports the decrease in allowable time from 3 minutes to 1 minute for bare products. In addition, the Committee requests that DOE query the currently qualified products to see if the 3 minute allowance for covered and reflector CFLs can be shortened to 2 minutes. In order to fully meet consumer expectations, the Committee believes that run-up time should be as quick as possible, given the limitations of the technology.

### 12. Shipment Data

Shipment data of qualified CFLs is very important to efficiency programs. While state/province level data is desirable, until it is available DOE should ensure that accurate, timely national-level (US and Canada) data are publicly available to enable stakeholders to gauge the success of their efforts to promote this product category.

## 13. Treatment of Failures in Testing

Based on questions raised at the stakeholder meeting, the Committee recommends that DOE clarify in writing how failures are to be treated in testing. For example, in tests requiring a sample size of ten, if two products fail is the average calculated based on a sample size of eight, or are the two failures kept in the calculation as zeros?

#### 14. Lifetime

The Committee is concerned with the number of burnouts that occur in ENERGY STAR-qualified CFLs before full rated lifetime if achieved. While no independent test data is available for *full* rated lifetime, the Program for the Analysis and Evaluation of Residential Lighting (PEARL) has tested products up to 40% of rated life and has found that 34% of products tested had one or more failure. In addition, 12.8% of products had two or more failures, and 6.4% of products had three or more failures. (Under the current ENERGY STAR criteria, two failures out of ten requires the manufacturer to submit a product failure report; three failures would prevent qualification outright.) DOE should consider solving this problem as a high priority.

Thank you for the opportunity to comment on the proposed changes to the ENERGY STAR CFL criteria. Questions on these comments should be directed to Rebecca Foster, Residential Program Manager, at 617-589-3949 ext. 207.

Sincerely, Man J. Hoffman

Marc Hoffman
Executive Director

# **Supporting Organizations:**

BC Hydro

Cape Light Compact

Connecticut Light & Power

Long Island Power Authority

National Grid

New York State Energy Research and Development Authority

Northeast Energy Efficiency Partnerships

Northwest Energy Efficiency Alliance

**NSTAR Electric** 

Pacific Gas & Electric

Sacramento Municipal Utility District

San Diego Gas & Electric

Unitil: The Fitchburg Gas & Electric Company

Western Massachusetts Electric Company

Wisconsin Division of Energy